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The Impact of Behavioral Intention and Behavior Using of Digital Payment Platforms on Digital Payment Performance

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Abstract

In payment, digital payment platforms (DPPs) are considered a technology-enabled payment model. Here, payment service providers through DPPs can share information and service quality with users in the fastest and most accurate way. This process creates a sustainable business ecosystem based on cooperation between payment service providers, platform providers and users. With strong connectivity, digital platforms create efficiency to promote payment services as more and more parties cooperate. The purpose of this study is to find out the impact of behavioral intention and behavior using of DPPs on the digital payment performance of digital payment service providers in Vietnam through applying The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) integrated with the Technology – Organization – Environment model (TOE model). The research results identify the factors Effort Expectancy, Price Value, Time and Cost Savings, positively impact Behavioral Intention; the factors Habits, Behavioral Intention positively impact Use Behavior. At the same time, this finding shows that only Use Behavior positively impacts Digital Payment Performance, while Behavioral Intention does not impact Digital Payment Performance. These research results are consistent with the current status of digital payment service development in Vietnam. These findings have important implications for the application of this research model as well as for practical applications to identify factors affecting behavioral intentions and digital payment platform usage behavior to digital payment performance of digital payment service providers in Vietnam.

Keywords: *Behavioral Intention, Digital Payment, Payment Performance, Payment Platforms UTAUT2.*

Introduction

Digital payments refer to any payment made through digital platforms. These are transactions that take place through digital payment platforms, instead of using cash transfers. This makes it easier for both the payer and the payee to connect when using digital means to exchange money, the transaction takes place in real time, saving time, reducing costs and high security. In particular, digital payments contribute to promoting cashless payments, developing financial technology, creating seamless and secure payments, bringing a lot of payment service performance to digital payment service providers.

With the development of e-commerce, digital payments along with the seamless, seamless digital payment experience across digital devices and platforms are indisputable, including easy payment methods, real-time payments, digital wallets, open banking, mobile banking, etc. Digital payments have created a wave of strong application of digital technology in the payment sector, making payments one of the fastest growing industries, contributing significantly to socio-economic development and promoting economic growth.

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Vietnam's digital payments record an impressive total transaction value, increasing from 126 billion USD in 2023 to 149 billion USD in 2024. Total transaction value is expected to show an annual growth rate (Compound Annual Growth Rate 2025-2029) of 18.94%, resulting in a projected total amount of US$203.10bn by 2029. Digital payments in Vietnam are developing. However, there are still some challenges that need to be solved to move towards a cashless society. The rate of non-cash payments is still lower than the set target, the number of payment acceptance points is not large, it is necessary to build a reliable payment and acceptance infrastructure, guide and strengthen user trust, the system needs to be secure, create added value and have the support of many parties to build solutions. Hence, applying DPPs with a reliable payment and acceptance infrastructure will help digital payments be seamless and secure, ensuring the acceptance of digital payments for most transactions and digital payments are truly an essential part of life. Therefore, studying the impact of behavioral intentions and digital payment platform usage behavior on digital payment performance of digital payment service providers in Vietnam will contribute to the development of non-cash payments, enhance the application of financial technology in payment services, and increase the digital payment performance of digital payment service providers in Vietnam.

Literature and Hypotheses

Behavioral intention and behavior of using DPPs in The UTAUT2 Model

Along with the remarkable development of science and technology and especially the Fourth Industrial Revolution, countries around the world are entering the digital age. This is a huge transformation in all aspects of modern social life, demonstrating the special role of digital technology, giving rise to new business models, including digital banking, digital payments, etc. Accordingly, digital payment is one of the important and mandatory business models in the process of developing non-cash payment services, which is a requirement for a digital society, a cashless society. Through the literature review, there are studies examining behavioral intention and use behavior of DPPs impact on digital payment performance when applying the UTAUT2 model as follows:

The study of Patil et al. (2018) stated several theories and applied models including the UTAUT2 model. This study argues that in the early stages of digital payment adoption, the number of DPP adopters is very small, so it is appropriate to focus on determining behavioral intentions rather than actual usage behavior. However, now that DPPs penetration and adoption are increasing, it is important to focus on behavioral intention and behavior using of DPPs to contribute to increasing digital payment performance.

In many cases, although cashless habits have increased, the adoption of DPPs still faces many challenges. Building a payment infrastructure and reliable acceptance, understanding the behavioral intentions and usage behaviors of DPPs that affect digital payment performance, strengthening trust in the provision of digital payment services, and continuous cooperation of DPPs providers with stakeholders to bring benefits and performance of digital payments are essential in the process of using DPPs (Ha and Nguyen, 2022a).

Digital payments are offered through digital channels such as the Internet, mobile phones, automated teller machines, point-of-sale devices, and other digital devices. At the same time, through new technology platforms such as DPPs, digital payment service providers have contributed to improving the authenticity, performance and transparency of digital payment service provision (Ha Van Duong, 2022a).

The study by Ong et al. (2023) used the UTAUT-2 model to analyze the factors related to behavioral intention to use digital payment systems. This study shows that the factors in the UTAUT2 model and the extended constructs have a significant positive influence on behavioral intention. Among them, social influence, effort expectancy, and perceived value are the top three constructs influencing behavioral intention. The results will also be beneficial and effective for stakeholders, including providers, in adopting digital payment systems.

Gupta et al. (2023) used the UTAUT2 model to examine the factors influencing behavioral intentions related to digital payments. The results of the study showed that the model fully satisfies all the parameters, reflecting the need for improved performance that can act as a catalyst and establish new paths for the development of digital payments.

The study by Nguyen and Ha (2023) was conducted in Vietnam. This study related to the use of DPPs also applied the UTAUT2 model and Structural Equation Modeling analysis method, which determined that increasing behavioral intention and behavior of using DPPs will contribute significantly to the development of non-cash payments, as well as improving the performance of digital payments in Vietnam.

Rahardhan and Legowo (2024) study on digital banking adoption using the UTAUT2 model extended with some additional factors. The results of this study show that digital banking adoption is influenced by many factors and this result also motivates banks to focus on improving digital banking performance and promoting digital banking adoption.

The study by Alfawareh et al. (2024) using econometric analysis from data on the use of DPPs for providing digital payment services by commercial banks showed that digital payment is one of the factors that has a significant positive association with digital payment performance. These results help stakeholders, banks, and policymakers to determine the impact of digital payment services on digital payment performance in developing economies.

Thus, there are many studies on behavioral intention and behavior of using DPPs when applying the UTAUT2 model. Researchers have inherited the elements in the UTAUT2 model as well as added new elements and determined the behavioral intention and use behavior of DPPs on digital payment performance.

Behavioral Intention and Behavior of using DPPs in The TOE Model

Digital payment is the driving force behind the behavioral intentions and behavior of using digital payment platforms of digital payment service providers, contributing to the overall and comprehensive transformation of the development methods of business models operating on digital platforms. Based on the literature review, there are studies examining behavioral intention and behavior using of DPPs impact on digital payment performance when applying the TOE model as follows:

The findings of Al-Fahim et al. (2021) show that the willingness to adopt online banking platforms of the organization has a significant and positive impact on the intention to adopt online banking as well as has an influence on the relationship between TOE factors and the intention to adopt online banking platforms. Furthermore, the willingness to adopt online banking platforms of the organization can be made more effective by implementing a wide range of online banking products.

Mahakittikun et al. (2021) studied the impact of technological-organizational-environmental factors on firm performance when applying DPPs based on the TOE model. The research results

identified factors in the TOE model that can affect business performance and firms applying DPPs can identify positive impacts on business performance.

Ekasari et al. (2021) used the TOE model to study cashless payments on DPPs for micro and small enterprises. These researchers argued that one of the factors that helps businesses succeed is the competitive strategy and the use of DPPs for both online and offline sales. The research results show that technology, organization, environment are factors that affect the use of DPPs, making business transactions easier for businesses and improving payment performance through DPPs.

Pramudito et al. (2023) applied the TOE model to analyze the intention of using DPP in small and medium enterprises. The research results reflect the organizational, technological and environmental factors affecting the behavioral intention to use PPP. At the same time, the intention to use DPP is influenced by technology.

Javani et al. (2023) also used the TOE model to study the factors that may influence the adoption of digital finance in SMEs. The results of this study show that environmental factors and organizational characteristics influence the adoption of digital finance, creating appropriate financial models to promote the performance and benefits of digital finance adoption to enhance competitiveness as well as support digital finance solution developers.

Therefore, there are many studies on behavioral intention and behavior of using DPPs when applying the TOE model. Researchers have also inherited the elements in the TOE model as well as added new elements and determined the behavioral intention and use behavior of DPPs on digital payment performance.

Behavioral Intention, Behavior of Using Dpps in the UTAUT2 Model Integrated with the TOE Model

Applying the UTAUT2 Model Integrated with the TOE Model

There are many studies on behavioral intention, behavior of using DPPs when applying the UTAUT2 model as well as many studies on behavioral intention, behavior of using DPPs when applying the TOE model. But up to now, there has been no study on the impact of behavioral intention and use behavior of DPPs on digital payment performance of digital payment service providers through applying the UTAUT2 model integrated with the TOE model. Therefore, researching the impact of behavioral intention and behavior of using DPPs on digital payment performance of digital payment service providers through applying the UTAUT2 model integrated with the TOE model in Vietnam becomes more and more necessary.

The Hypotheses in the Research Model

The UTAUT2 model, the TOE model and the integrated model of these two models are presented as well as determining the hypotheses of this research model as follows:

Venkatesh et al. (2012), based on the UTAUT model, added three factors such as Hedonic Motivation, Price Value, Habit and created the UTAUT2 model. The UTAUT2 model examines the impact of the factors of the UTAUT model and the factors Hedonic Motivation, Price Value, Habits on behavioral intention and finally, the impact of behavioral intention and use behavior on technology platform. Through the UTAUT2 model, it shows that the Technology Acceptance Model (TAM) of Davis (1989) and the Theory of Reasoned Action (TRA) of Fishbein and Ajzen (1975) have overcome the imperfections when applied to new technology application models.

The UTAUT2 model overcomes the shortcomings of the Davis (1989) Technology Acceptance Model (TAM) and Fishbein and Ajzen (1975) Theory of Reasoned Action (TRA) theories and applies them to new technology adoption models. Tornatzky and Fleischer (1990) studied the processes of technological innovation and formulated the TOE model to examine the effects of technological, organizational and environmental on the adoption decision of technology.

The integrated model of UTAUT2 model with the TOE model studies the impact of behavioral intention and behavior of using DPPs on digital payment performance of digital payment service providers in Vietnam, as can be seen in Figure 1.

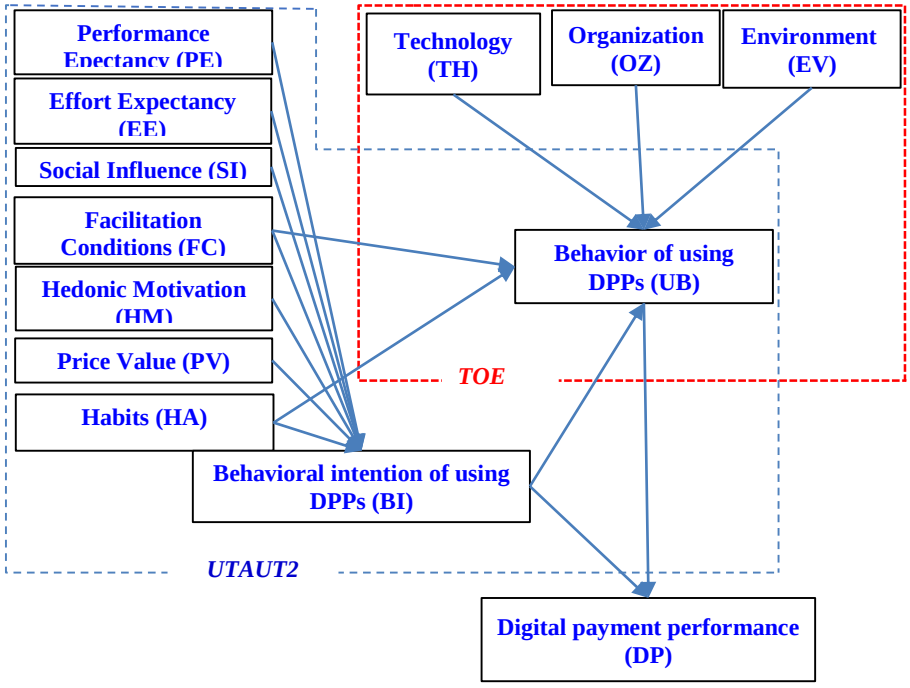

Figure 1. Research Model

Factors influencing behavioral intention and Behavior of using DPPs:

Performance expectancy (PE) represents a user's belief that there will be benefits and improved work performance when using a technology system (Venkatesh et al., 2012). DPPs provide convenience in payment and more performance in managing payment services. Therefore, the performance and expected benefits of digital payment services are one of the important aspects for the decision to adopt DPPs. Performance expectancy also reflects the performance and convenience of using digital payment services, leading to the influence of Performance Expectancy on behavioral intention to use DPP (Latifah et al., 2021). When examining digital banking services, including digital payment services in the study of Mailoa and Tjhin (2023), it was found that performance expectancy has a significant impact on behavioral intention to use DPPs. Many studies on digital payment adoption have found performance expectancy to be one of the most significant drivers of uers' behavioral intention to adopt DPPs and performance

expectancy positively affects the behavioral intention of using DPPs (Gastaldi, 2024). Therefore, hypothesis 1 is proposed that:

Hypothesis 1 (H1): Performance expectancy positively affects behavioral intention to use DPPs of digital payment service providers in Vietnam.

Effort expectancy (EE) refers to the level of convenience and ease that users experience with a technology system (Venkatesh et al., 2012). When a technology system is easier to use, less effort is required and users will have stronger behavioral intentions to use technology platforms. Therefore, ease of use of digital payments will be more likely to adopt technology platforms that meet digital payment needs (Santosa et al., 2021). Haroun et al., (2022) found that effort expectancy has a strong impact on behavioral intention to use online banking services. Therefore, digital payment services that are easy to understand and use will help effort expectancy play a role in promoting behavioral intention to use DPPs. If the use of the technology platform is easy, it will reduce the time and effort required. The research results demonstrate that effort expectancy has a significant impact on behavioral intention to use DPPs (Pangestu and Pasaribu, 2022). The use of technology systems that understand the complexity and ease of making payment transactions is more likely to increase the behavioral intention and interest in using DPPs (Pamungkas and Rahmayanti, 2024). Thus, hypothesis 2 suggests that:

Hypothesis 2 (H2): Effort expectancy positively affects behavioral intention to use DPPs of digital payment service providers in Vietnam.

Social influence (SI) refers to the process by which users of technology platforms believe that they should adopt new technology platforms due to the influence of important people such as family, friends, etc. The more digital payment service providers use DPPs around them, the more likely these providers are to decide to use DPPs, which makes them feel satisfied because of the adoption of the social environment (Zhou, 2011). Widyanto et al. (2020) presented the results of a study related to the adoption of payment via digital platforms and demonstrated that behavioral intention to use this payment platform was significantly influenced by social influence. Studies on the strong relationship between social influences and behavioral intentions to adopt DPPs have also been demonstrated in practice. The interaction between behavioral intentions and social influence is a notable driver of current adoption (Najib and Fahma, 2020). Gupta et al. (2023) studied the transformation of behavioral intention into sustainable intention in the application of DPPs and found that behavioral intention is positively influenced by social influence. The research results show that social influence has a significant impact on behavioral intention to use DPPs (Pangestu and Pasaribu, 2022). The analysis results of Rahayu et al. (2024) demonstrate that social influence has a significant impact on behavioral intention to use DPPs. Therefore, hypothesis H3 is proposed as follows:

Hypothesis 3 (H3): Social influence positively affects behavioral intention to use DPPs of digital payment service providers in Vietnam.

Facilitating conditions (FC) refer to the level of resources, support, convenience, and compatibility for the use of a technology platform (Venkatesh et al., 2012). Empirical evidence by Chaveesuk et al. (2022) demonstrates that facilitating conditions play a pivotal role in shaping behavioral intentions and significantly influence the adoption of DPPs when there is available support, technological infrastructure, and facilitating conditions for their adoption. In digital payments, payment service providers need to ensure the necessary resources, access, technical support, secure and compatible infrastructure to develop digital payment services. The test

results in the study demonstrate that facilitating conditions significantly influence behavioral intention to use digital technology platforms for payments (Rahayu et al., 2024). Facilitating Conditions captures the emotional and cognitive dimensions important to use behavior and adoption decision-making in the context of digital banking through measuring and evaluating structural relationships (Papathomas et al., 2025). Hence, hypothesis H4 are presented as follows:

Hypothesis 4 (H4): Social influence positively affects behavioral intention to use DPPs of digital payment service providers in Vietnam.

Hypothesis 4a (H4a): Facilitating conditions positively affect behavioral intention to use DPPs of digital payment service providers in Vietnam.

Hypothesis 4b (H4b): Facilitating conditions positively affect the DPPs use behavior of digital payment service providers in Vietnam.

Hedonic motivation (HM) plays a vital role in the acceptance and use of technology, which has been shown to be the pleasure and enjoyment derived from using technology (Venkatesh et al., 2012). Hedonic motivation and behavioral intention have a significant relationship and behavioral intention is influenced by hedonic motivation in using digital banking platforms (Suma vally and Shankar, 2020). Yuliani et al. (2024) also concluded in their study that hedonic motivation contributes to increasing behavioral intention to use technology in various contexts, as well as promoting the adoption of digital technology platforms, including DPPs, which are constantly evolving. Hedonic motivation refers to pleasure from satisfaction in applying technology platforms because this factor directly influences adoption as well as behavior of using digital banking services (Bhatnagr and Rajesh, 2024). When using DPPs, the behavioral intention to use the platform is shaped by the combination of hedonic motivation (Meiranto et al., 2024). According to Papathomas et al. (2025) hedonic motivation is an important factor influencing behavioral intention and decision-making to adopt digital banking platforms including DPPs. Thus, hypothesis H5 suggests as follows:

Hypothesis 5 (H5): Hedonic motivation positively affects behavioral intention to use DPPs of digital payment service providers in Vietnam.

Price value (PV) is essential in predicting behavioral intentions and users' perceptions of the benefits of adopting technology and the monetary costs of using them, and technology adopters' behavioral intentions are positively influenced by price value (Venkatesh et al., 2012). In the context of DPPs, price value has a significant influence on the behavioral intentions of digital payment service providers. Because DPPs can help reduce transaction fees compared to other payment methods, especially in cross-border payments, payment service providers are often associated with paying high fees (Ha Van Duong, 2022a). The behavioral intention of Fintech service providers to use DPPs is significantly influenced by one of the important factors, which is price value (Ha and Nguyen, 2022b). Compared to traditional banking services, Fintech applications, including DPPs have some advantages, such as providing more innovative services and cost savings for these service providers. Therefore, the behavioral intention and adoption of DPPs by these service providers will be influenced by cost savings, price value and advantages in providing more innovative services (Ha Van Duong, 2022b). The results of Linge et al. (2023) reveal that the behavioral intentions of using digital payment systems such as DPPs are positively influenced by price value. Because the Fintech ecosystem has connected digital payment service providers, banks, businesses, startups are increasingly developing and

participating in this industry. In the context of using DPPs, the behavioral intention to use the platform is shaped by the combination of price value (Meiranto et al., 2024). Hence, hypothesis H6 is formed as follows:

Hypothesis 6 (H6): Price value positively affects behavioral intention to use DPPs of digital payment service providers in Vietnam.

Habits (HA) are the level of performing an individual's behavior automatically due to past learning to adopt technology. Additionally, empirical research has also demonstrated that habits influence how users adopt technology (Venkatesh and Xu, 2012). In the context of DPPs, habits refer to the degree to develop routine and automatic behavior of using DPPs (Susilowati et al., 2021). Fintech platforms including DPPs are used to provide digital financial services based on different transactions and habits that have impacted the behavioral intention to choose these platforms for payment and money transfer from one person to another (Ha Van Duong, 2022c). The study of Nepal and Nepal (2023) demonstrates that habits have a significant positive impact on DPPs adoption. It is the strongest predictor of DPPs adoption and habits or continuous, repeated adoption of DPPs has a significant positive relationship with DPPs adoption by digital payment service providers such as commercial banks. In the context of using DPPs, the behavioral intention to use the platform is shaped by the combination of habits (Meiranto et al., 2024). Two hypotheses are presented as follows:

Hypothesis 7a (H7a): Habits positively affects behavioral intention to use DPPs of digital payment service providers in Vietnam.

Hypothesis 7b (H7b): Habits positively affect the DPPs use behavior of digital payment service providers in Vietnam

Technologiy (TH) is a component in the TOE model that deals with the combination of technologies used or accessible and represents the characteristics of the technology available to serve the organization's operations (Baker, 2012). By using the TOE model, Tajudeen et al. (2020) found that technology significantly impacts business platform usage and Putra et al. (2020) describe that technology strongly promotes the adoption behavior of business platforms, including DPPs in businesses. El-Haddadeh et al. (2021) also used a TOE-based model, and they demonstrated that technology significantly promotes the adoption behavior of technology platforms to create value. The research results of Gupta et al. (2023) show that digital payment technology and drivers are increasingly impacting, so the usage behavior of retailers is motivated to be able to exploit these tools in the digital era. The study by Aprissa and Aligarh (2024) identified the results of a positive relationship between use behavior of technology platforms in payments and firm performance. Hypothesis H8 is formed as follows:

Hypothesis 8 (H8): Technology positively affects the providers' Behavior of using DPPs in Vietnam.

Organization (OZ) refers to the internal factors and available resources along with management support in allocating sufficient resources to facilitate the adoption of new technologies (Al Hadwer et al., 2021). Tajudeen et al. (2020) describe that the environment significantly influences business platform usage and Putra et al. (2020) found that organizations significantly impact the adoption behavior of business platforms, including DPPs in businesses via applying the TOE model. The TOE model has been used by El-Haddadeh et al. (2021) and they found that the organization is a factor that significantly affects the use behavior of technology platforms to create value for businesses. In the study of Shaw et al. (2022), organizational-related aspects

mentioned the impact on the intention to adopt technologies in the banking sector. The research results of Abdurrahman (2024) show that factors such as awareness in the technology field, innovation and organizational factors have a positive and significant impact on digital business platforms. Therefore, hypothesis H9 suggests as follows:

Hypothesis 9 (H9): Organization positively affects the providers' Behavior of using DPPs in Vietnam.

Environment (EV) is a manifestation of the space or area in which an organization operates and is also an important factor influencing technology adoption (Baker, 2012). By adopting the TOE model, Tajudeen et al. (2020) argue that organizations significantly impact business platform usage and Putra et al. (2020) show that the environment significantly influences the adoption behavior of business platforms, including DPPs in businesses. The research results of Al-Fahim et al. (2021) found that the operating environment of merchants or suppliers has an impact on use behavior and the decision to deploy online payment platforms, including DPPs. According to El-Haddadeh et al. (2021), the environment significantly affects the use behavior of technology platforms to create value for businesses when they apply the TOE model. Hypothesis 1o is proposed that:

Hypothesis 10 (H10): Environment positively affects the providers' Behavior of using DPPs in Vietnam.

Factors Influencing Digital Payment Performance:

Digital payment performance is related to cost reduction, transaction time reduction, security enhancement, sales growth, and attracting more and more digital payment service users. Because business performance is also described in terms of cost reduction, operational growth, sales growth, and customer relationship enhancement (Mahakittikun et al., 2021). In this research model, the behavioral intention and behavior of using DPPs positively affect digital payment performance as follows.

Behavioral intention (BI) refers to the level of users' technology adoption. Behavioral intention is also a predictor of users' willingness and continued use of technology (Venkatesh et al., 2012). Sivathanu (2017) found that the frequency and intention of using digital payment systems are influenced by the behavioral intention of using these payment platforms. Because behavioral intention is closely related to the use of DPPs and digital payment systems, as well as these payment platforms are regulated by the development of cashless payment. The research by Chaveesuk et al. (2022) also revealed that behavioral intention influences the intention to adopt digital payment systems. This finding has implications for banks and digital payment service providers regarding the impact on the adoption of DPPs. Rahmiati et al. (2022) conducted a study on banking technology platforms, showing that behavioral intention to use these platforms affects behavior in using them. For digital financial service providers, the behavioral intention to apply DPPs in their service provision is positively correlated with long-term DPPs usage behavior (Ha Van Duong, 2022a). The Khan and Abideen (2023) study shows that behavioral intention positively impacts behavior of using DPPs through the provision of digital wallet services. Using DPPs can be considered relatively new and providers' DPPs understand the behavior intention to use them (Rahayu, et al., 2024). Ha Van Duong (2022a) found that DPPs provide insights into digital features and interactions that will allow providers of these platforms to evaluate digital payment performance and better tailor products. The behavioral intentions of DPPs providers via payment services contribute to the benefits, reduce operational costs and

enhance the performance of providing digital payment services. In addition, digital payment performance (DP) is an important aspect of business growth as well as behavioral intention of using DPPs has a positive impact on digital payment performance (Bhattarai et al., 2023). Therefore, two hypotheses are indicated as follows:

Hypothesis 11a (H11a): Behavioral intention positively affects DPPs use behavior of digital payment service providers in Vietnam.

Hypothesis 11b (H11b): The providers' behavioral intention (Behavioral intention of using DPPs) positively affects the digital payment performance in Vietnam.

The behavior of using DPPs (UB) represents DPPs usage behavior, which shows the user's actions when using DPPs through actual usage frequency to achieve certain goals. Because, use behavior shows the user's actions when using technology platform through actual usage frequency to achieve certain goals (Venkatesh et al., 2012). Examining the impact of DPPs adoption on the performance of digital payment services providers such as retailers, Adhikary et al. (2021) found that the adoption of DPPs increases the performance of digital payment services and recommends that DPPs be adopted appropriately for business operations. Behavioral intention to use DPPs impacts digital payment service performance (Latifah et al., 2021). The study by Chaveesuk et al. (2022) also analyzed the results of the influence of behavioral intention on the adoption of DPPs and digital payment performance. Bhattarai, et al. (2023) revealed that digital payment performance is an important aspect of business growth as well as behavior of using DPPs has a positive impact on digital payment performance. Research could explore the impacts of adopting DPPs across sectors, motivating adoption behavior to achieve economic outcomes, and yielding DPPs adoption performance (Birigozzi et al., 2025). Therefore, hypothesis H12 is proposed as follows:

Hypothesis 12 (H12): The providers' use behavioral (Behavior of using DPPs) positively affects the digital payment performance in Vietnam.

Research Methodology

Research Design

This study uses different research designs and methods. In which, descriptive research design, exploratory design, correlational design and cross-sectional design are applied to collect statistical and comparative data, to clarify concepts and develop hypotheses, as well as to investigate the impact of DPPs adoption on digital payment performance. Positivistic approaches, qualitative approaches and quantitative approaches are used to understand the adoption of DPPs by digital payment service providers in Vietnam. Purposive sampling methods are used to ensure that digital payment service providers adopting DPPs are included in the study population. This study uses the Structural Equation Modeling (SEM) technique to analyze its data. This is a powerful statistical method that allows us to explore the relationships and interactions between variables in the research model.

Sample and Data

This study used a survey questionnaire to collect data. Out of 650 questionnaires distributed, only 619 questionnaires were collected and used for analysis. A Likert scale of 1 to 5 was used in this study with 5 (strongly agree) to 1 (strongly disagree) to represent the responses of the surveyed digital payment service providers adopting DPPs. With the "10-fold rule" method used in PLS-SEM to estimate the minimum sample size (Hair et al., 2011), the sample size in this

study according to the "10-fold rule" was 530 (10x53 = 530). Therefore, the number of samples collected from 619 representatives of digital payment service providers adopting DPPs is considered to ensure a sufficient sample size for this study.

Research Results

Cronbach's Alpha Reliability Analysis

Cronbach's alpha value must ensure that the general rule is greater than 0.60 and variables with a total correlation coefficient of greater than 0.3 are accepted (Hulin et al., 2001). The results of the reliability analysis determined that all scales were eligible to proceed to the next steps of the model because of the variables with an alpha coefficient of greater than 0.6 and a total correlation coefficient of greater than 0.3, as shown in Table 1.

No.	Code	**Observed variables**	**Corrected Item-Total Correlation**
	PE	Cronbach's alpha = 0.834	
1	PE1	Digital payment service providers are adopting DPPs everywhere to transact online.	0.661
2	PE2	Digital payment service providers understand and easily use DPPs to transact online.	0.606
3	PE3	Digital payment service providers who adopt DPPs have high expectations for online transaction performance.	0.613
4	PE4	Digital payment service providers adopt DPPs to offer more products and services online.	0.563
5	PE5	Digital payment service providers adopt DPPs to better align with market trends.	0.566
6	PE6	Digital payment service providers adopt DPPs to make online transactions more convenient.	0.651
	EE	Cronbach's alpha = 0.818	
7	EE1	Digital payment service providers adopt DPPs to help increase online transaction sales.	0.546
8	EE2	Digital payment service providers adopt DPPs to provide more online products and services.	0.526
9	EE3	Digital payment service providers adopt DPPs to provide more secure online products and services.	0.663
10	EE4	Digital payment service providers adopt DPPs and understand online transaction information.	0.593
11	EE5	Digital payment service providers adopt DPPs to have enough information to provide online products and services.	0.729
	SI	Cronbach's alpha = 0.824	
12	SI1	Digital payment service providers adopting DPPs for online transactions are influenced by many influencers.	0.674
13	SI2	Digital payment service providers adopting DPPs	0.557

		recommend other providers to use DPPs for online transactions.	
14	SI3	Digital payment service providers are advised by other providers to use DPPs for online transactions.	0.617
15	SI4	Digital payment service providers are advised by professional associations to use DPPs for online transactions.	0.556
16	SI5	Digital payment service providers adopting DPPs for online transactions are influenced by strategic partners.	0.594
17	SI6	Familiar providers support digital payment service providers to use DPPs for online transactions.	0.553
	FC	Cronbach's alpha = 0.857	
18	FC1	Digital payment service providers have the expertise to apply DPPs to online transactions.	0.728
19	FC2	Digital payment service providers have the financial capacity to apply DPPs to online transactions.	0.679
20	FC3	Digital payment service providers ensure the conditions for applying DPPs to online transactions.	0.600
21	FC4	Digital payment service providers ensure the necessary resources to apply DPPs to online transactions.	0.552
22	FC5	Digital payment service providers ensure the security of applying DPPs to online transactions.	0.609
23	FC6	Digital payment service providers are supported by platform providers in applying DPPs to online transactions.	0.743
	HM	Cronbach's alpha = 0.775	
24	HM1	Digital payment service providers feel more comfortable with adopting DPPs for online transactions.	0.560
25	HM2	Digital payment service providers feel fortunate with adopting DPPs for online transactions.	0.635
26	HM3	Digital payment service providers feel satisfied with adopting DPPs for online transactions.	0.669
27	HM4	Digital payment service providers feel happy with adopting DPPs for online transactions.	0.598
28	HM5	Digital payment service providers are very interested in adopting DPPs for online transactions.	0.502
	PV	Cronbach's alpha = 0.675	
29	PV1	Digital payment service providers adopt DPPs to save time for online transactions	0.567
30	PV2	Digital payment service providers adopt DPPs to save cost for online transactions	0.579
31	PV3	Digital payment service providers adopt DPPs to pay reasonable costs for online transactions	0.500
32	PV4	Digital payment service providers adopt DPPs to pay no checking costs for online transactions	0.499

33	PV5	Digital payment service providers adopt DPPs to pay no additional costs for online transactions	0.522
	HA	Cronbach's alpha = 0.806	
34	HA1	Digital payment service providers have staff who are familiar with DPPs for online transactions.	0.662
35	HA2	Digital payment service providers have sufficient staff to apply DPPs for online transactions.	0.494
36	HA3	Digital payment service providers receive support and guidance from DPPs providers for online transactions.	0.643
37	HA4	Digital payment service providers' staff can use DPPs for online transactions.	0.551
38	HA5	Digital payment service providers have staff who are familiar with DPPs for online transactions.	0.610
	BI	Cronbach's alpha = 0.752	
39	BI1	Digital payment service providers continue to adopt DPPs for online transactions.	0.578
40	BI2	Digital payment service providers will adopt DPPs for online transactions.	0.571
41	BI3	Digital payment service providers recommend other providers to adopt DPPs for online transactions.	0.594
	UB	Cronbach's alpha = 0.708	
42	UB1	Digital payment service providers have difficulty in applying DPPs, DPPs providers will support in applying DPPs for online transactions.	0.495
43	UB2	Digital payment service providers may not need the support of DPPs providers in applying DPPs for online transactions.	0.540
44	UB3	Digital payment service providers may apply DPPs for online transactions even if they may not have used DPPs before.	0.542
	TH	Cronbach's alpha = 0.636	
45	TH1	The application of DPPs is excellent in digital payment services.	0.446
46	TH2	The compatibility of DPPs according to the payment transaction needs.	0.402
47	TH3	The application of DPPs does not encounter any difficulties.	0.490
	OZ	Cronbach's alpha = 0.643	
48	OZ1	Organizational capacity to adapt to the application of DPPs for digital payments.	0.455
49	OZ2	Implement good business management in the application of DPPs for digital payments.	0.428
50	OZ3	Organize training and learning activities for employees on the application of DPPs for digital payments.	0.478
	EV	Cronbach's alpha = 0.763	
51	EV1	Enhance competitiveness when applying DPPs for	0.595

		digital payments.	
52	EV2	Create more advantages and attract more customers when applying DPPs for digital payments.	0.576
53	EV3	Ensure security when applying DPPs for digital payments.	0.619
	EP	Cronbach's alpha = 0.688	
54	EP1	Applying DPPs to digital payments helps digital payment service providers reduce transaction costs and time.	0.483
55	EP2	Applying DPPs to digital payments helps digital payment service providers increase sales and enhance customer relationships.	0.500
56	EP3	Applying DPPs to digital payments contributes to promoting marketing activities, promoting brands and improving the efficiency of digital payment services.	0.526

Table 1. Independent, moderating and dependent variables in the research

Source: Inherited from previous studies and additions by the authors

Exploratory Factor Analysis

Exploratory factor analysis (EFA) is used to reduce a set of observed variables into a more meaningful set of factors. The results showed a Kaiser-Meyer-Olkin (KMO) of 0.772 (greater than 0.5 and less than 1) and .Sig coefficient. = 0.000 in the Bartlett test (less than 0.05). These results indicate that the observed variables are correlated with each other and are suitable for use in the model analysis, as can be shown in Table 2.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	Cumulative %
1	4.984	9.403	9.403	4.984	9.403	9.403	3.555	6.708
2	3.635	6.859	16.262	3.635	6.859	16.262	3.386	13.096
3	3.399	6.414	22.676	3.399	6.414	22.676	3.259	19.245
4	2.836	5.351	28.027	2.836	5.351	28.027	2.994	24.894
5	2.756	5.199	33.226	2.756	5.199	33.226	2.884	30.335
6	2.526	4.766	37.993	2.526	4.766	37.993	2.698	35.425
7	2.203	4.156	42.148	2.203	4.156	42.148	2.162	39.505
8	2.088	3.939	46.087	2.088	3.939	46.087	2.106	43.479
9	1.883	3.554	49.641	1.883	3.554	49.641	2.084	47.410
10	1.715	3.236	52.877	1.715	3.236	52.877	1.954	51.098
11	1.584	2.988	55.865	1.584	2.988	55.865	1.817	54.525
12	1.388	2.619	58.484	1.388	2.619	58.484	1.789	57.901
13	1.197	2.259	60.744	1.197	2.259	60.744	1.507	60.744
14	.905	1.707	62.451					
Extraction Method: Principal Component Analysis.								

Table 2. Exploratory factor analysis for independent variables

Source: Calculated from SPSS 25.0

The rotation matrix results show that 53 observed variables are divided into 13 factors. All observed variables have a factor loading coefficient of greater than 0.5 and new factors arise (with pairs of observed variables PV1 and PV2), as can be seen in Table3. The observed variable pairs PV1 and PV2 are related to time and cost savings in adopting DPPs. Therefore, this new factor is named Time and Cost savings (TC). The hypothesis of the TC factor has a positive impact on the digital payment service providers' behavioral intention of adopting DPPs in Vietnam, as can be shown in Table 3.

	Component												
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
FC6	.823												
FC1	.813												
FC3	.746												
FC2	.740												
FC5	.727												
FC4	.634												
PE6		.779											
PE1		.775											
PE3		.726											
PE2		.723											
PE4		.667											
PE5		.665											
SI1			.807										
SI3			.761										
SI5			.722										
SI2			.690										

SI6			.686										
SI4			.684										
EE5				.847									
EE3				.803									
EE4				.750									
EE1				.696									
EE2				.673									
HA 1					.810								
HA 3					.802								
HA 5					.752								
HA 4					.711								
HA 2					.644								
HM 3						.817							
HM 2						.791							
HM 1						.728							
HM 5						.677							
HM 4						.582							
PV5							.873						
PV4							.795						
PV3							.779						
EV 3								.830					
EV 1								.801					
EV 2								.795					

BI3									.797				
BI1									.796				
BI2									.764				
UB3										.798			
UB2										.782			
UB1										.734			
OZ3											.764		
OZ1											.760		
OZ2											.730		
TH3												.794	
TH1												.740	
TH2												.724	
PV1													.866
PV2													.792

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table 3. Rotated component matrix for independent variables

Source: Calculated from SPSS 25.0

The rotation matrix results for the dependent variables, one factor was found and the factor loadings are all greater than 0.5 and the KMO is 0.667. This result is suitable for use in model analysis, as shown in Table 4.

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.849	61.627	61.627	1.849	61.627	61.627
2	.608	20.258	81.885			
3	.543	18.115	100.000			
Extraction Method: Principal Axis Factoring.						

Table 4. Exploratory factor analysis for dependent variables

Source: Calculated from SPSS 25.0

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) focused on measurement models with results consistent with actual data and the KMO coefficient was 0.768 (greater than 0.5), Sig was 0.000 < 0.05. Creating links e3 and e4, e4 and e5, e3 and e6, e9 and e10, e10 and e12, e13 and e14, e15 and e16, e14 and e16, e19 and e23, e20 and e21, e21 and e23, e26 and e27, e26 and e28, e32 and e33 to adjust the covariance showed that this model has Chi-square/df = 1.287 < 3 with p value = 0.000 and CMIN/df value equal to or less than 5 is acceptable (Hair et al., 2010). Kline (2011) stated that the fit indices used (GFI, AGFI, NFI, NNFI, CFI and IFI) should be ≥ 0.85. The AGFI, GFI and CFI values should be ≥ 0.80 (Byrne and Campbell, 1999). TLI ≥ 0.85 is a good fit and > 0.8 is a moderate fit (Shadfar & Malekmohammadi, 2013). The analysis results showed that the TLI value was 0.957; the CFI value was 0.961; the GFI value was 0.909, so this result is very suitable for the model. The RMSEA value should be 0.06 or less to be accepted, so an RMSEA of 0.022 is good; a PCLOSE value of 0.01 or greater is acceptable, so a PCLOSE of 1,000 is excellent (Hu and Bentler, 1999). The standardized and unstandardized coefficient results greater than 0.5 and the total variance value greater than 0.5 indicate that the model fits the market data well, as can be seen in Figure 2.

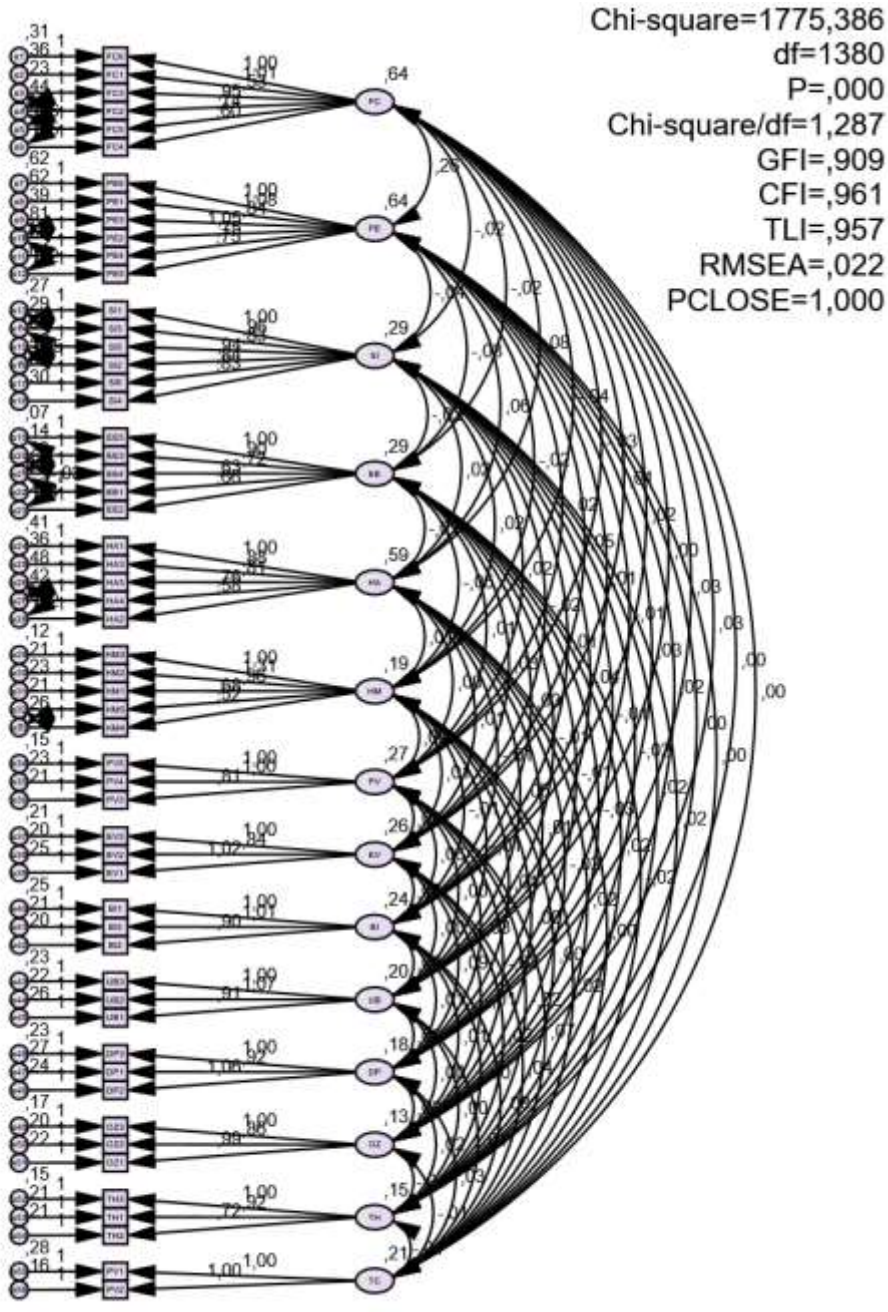

Figure 2. Confirmatory Factor Analysis

Source: Calculated From SPSS 25.0

Structural Equation Modeling

Structural equation modeling (SEM) is a statistical analysis technique developed to analyze multivariate relationships among multiple variables in a model. The results of the SEM analysis

show that it achieves a good fit with market data as p = 0.000; Chi-square/df = 1.345; TLI = 0.948; CFI = 0.952; GFI = 0.905; RMSEA = 0.024; PCLOSE = 1.000 as can be seen in Figure 3.

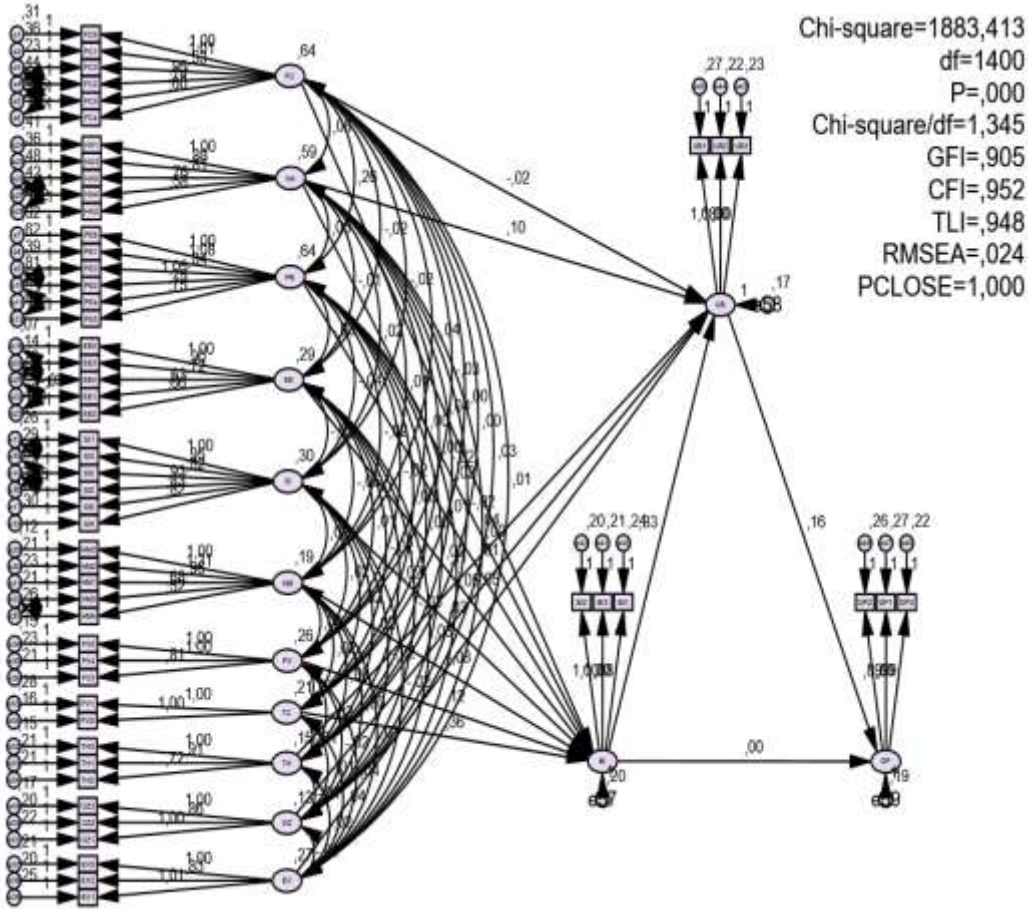

Figure 3. Structural Equation Modeling

Source: Calculated from SPSS 25.0

The analysis results of regression weight and standardized regression weight showed that EE, PV and TC had positive effects on BI, with P values of 0.011; 0.017 and 0.000, respectively. In addition, HA and BI had positive effects on UB with P values of 0.001 and 0.000, respectively. At the same time, UB had positive effects on DP with P values of 0.010 respectively, as can be seen in Table 5.

			Unstandardized Coefficients				Standardized Coefficients
			Estimate	S.E.	C.R.	P	Estimate
BI	<---	FC	,037	,033	1,109	,267	,060
BI	<---	HA	-,022	,032	-,688	,491	-,034
BI	<---	PE	,013	,033	,405	,686	,022

			Unstandardized Coefficients				Standardized Coefficients
BI	<---	EE	,114	,045	2,544	,011	,124
BI	<---	SI	,026	,045	,574	,566	,029
BI	<---	HM	-,083	,058	-1,425	,154	-,073
BI	<---	PV	,125	,052	2,393	,017	,130
BI	<---	TC	,357	,067	5,345	***	,332
UB	<---	FC	-,022	,028	-,787	,431	-,039
UB	<---	HA	,098	,030	3,212	,001	,168
UB	<---	TH	,043	,065	,662	,508	,038
UB	<---	OZ	,008	,071	,112	,911	,006
UB	<---	EV	-,049	,046	-1,080	,280	-,057
UB	<---	BI	,326	,053	6,115	***	,359
DP	<---	BI	,005	,055	,089	,929	,005
DP	<---	UB	,163	,063	2,570	,010	,164

Table 5. Regression Weights and Standardized Regression Weights

Source: Calculated from SPSS 25.0

Bootstrap is a repeated sampling method with replacement which was performed with a replicate sample of N = 1200. The estimated results of summary statistics showed that the results are reliable, with C.R < 1.96 implying a p-value of > 5%, as can be seen in Table 6.

Parameter			SE	SE-SE	Mean	Bias	SE-Bias	C.R = Bias / SE-Bias
BI	<---	FC	,052	,001	,060	,000	,002	0
BI	<---	HA	,053	,001	-,031	,003	,002	1,5
BI	<---	PE	,057	,001	,019	-,002	,002	-1,0
BI	<---	EE	,048	,001	,125	,001	,001	1,0
BI	<---	SI	,060	,001	,027	-,002	,002	-1,0
BI	<---	HM	,054	,001	-,074	-,001	,002	-0,5
BI	<---	PV	,056	,001	,128	-,003	,002	-1,5
BI	<---	TC	,068	,001	,336	,002	,002	1,0
UB	<---	FC	,050	,001	-,040	-,001	,001	-1,0
UB	<---	HA	,050	,001	,166	-,003	,002	-1,5
UB	<---	TH	,062	,001	,036	-,002	,002	-1,0
UB	<---	OZ	,059	,001	,004	-,002	,002	-1,0
UB	<---	EV	,056	,001	-,059	-,002	,002	-1,0
UB	<---	BI	,057	,001	,360	,001	,002	0,5
DP	<---	BI	,069	,001	,008	,002	,002	1,0
DP	<---	UB	,072	,001	,160	-,003	,002	-1,5

Table 5. Bootstrap method on SEM

Source: Calculated from SPSS 25.0

Discussions Results

Factors affecting Behavioral intention and Behavior of using DPPs

Effort expectancy positively influences the behavioral intention to use DPPs of digital payment service providers in Vietnam. This result is consistent and similar to the research results of Venkatesh et al. (2012), Santosa et al. (2021). Haroun et al. (2022), Pangestu and Pasaribu (2022), Pamungkas and Rahmayanti (2024). The results clearly show that the application of DPPs in digital payments is easy to understand and use, reduces the time and effort required, and plays a role in promoting behavioral intention to use DPPs. Therefore, the ease of use of DPPs will be more likely to adopt DPPs to meet the needs of digital payments. Digital payment systems include online payment systems of banks and services provided by digital financial companies that have been deployed in Vietnam. In addition to creating easy-to-understand and easy-to-use digital payment application and service platforms that meet diverse payment needs, in Vietnam, it is necessary to quickly grasp new technology trends for synchronous implementation, invest in building payment technical infrastructure, create many easy-to-apply digital payment application platforms, as well as have mechanisms to promote digital payments, which are requirements set forth in the coming time.

Price value positively affects behavioral intention to use DPPs of digital payment service providers in Vietnam. This result supports the empirical evidence of the studies by Venkatesh et al. (2012), Ha Van Duong (2022a), Ha and Nguyen (2022b), Ha Van Duong (2022b), Linge et al. (2023), Meiranto et al. (2024). This result reflects the fact that the application of DPPs in Vietnam is a popular trend in the current 4.0 technology era. With its fast, convenient and secure features, e-payment helps save time, minimize operating costs, create competitive advantages for digital payment service providers, optimize business processes, promote the development of the digital ecosystem, expand cooperation with technology partners and enhance the experience through this application. This result illustrates that the intention to adopt DPPs of digital payment service providers will be more positive when their perception of the benefits of applying technology and monetary costs when using them is determined to have lower financial costs, more benefits brought by technology and increasingly attract more adoption of DPPs. This result illustrates that digital payment service providers' intention to adopt DPPs will be more positive when they have higher levels of recognition from others, more adequate resources, higher satisfaction with the technology, lower financial costs, easier-to-use operating procedures, more benefits brought by the technology, and more attention from others.

Time and cost savings have a positive impact on the digital payment service providers' behavioral intention of adopting DPPs in Vietnam. This result is consistent with the expected hypothesis stated in this study, and once again affirms that the application of DPPs in Vietnam has created conditions for digital payment service providers to develop modern products and services, exploiting the advantages brought by DPPs through time and cost savings. From there, digital payment service providers improve service quality, contributing to promoting cashless payments in the community.

Habits positively affect the DPPs use behavior of digital payment service providers in Vietnam. This has demonstrated that habits influence how digital payment service providers adopt technology, according to the study of Venkatesh and Xu (2012), as well as supporting the

research results of Susilowati et al. (2021), Nepal and Nepal (2023). In addition, the project to develop non-cash payments in Vietnam in the period 2021-2025 and the incentive policies and regulations on non-cash payments have contributed significantly to the new habits of using digital payment applications and DPPs in the operations of digital payment service providers as well as in the community.

Behavioral intention positively affects DPPs use behavior of digital payment service providers in Vietnam. Compared with previous studies by Venkatesh et al. (2012), Sivathanu (2017), Chaveesuk et al. (2022), Rahmiati et al. (2022), (Ha Van Duong, 2022a), Khan and Abideen (2023), (Rahayu, et al., 2024), the results of this study always support the previous research results, as well as are consistent with the proposed hypothesis. This result reflects that digital payment transactions are increasingly growing along with payment transactions made through e-commerce solutions, helping transactions to be smooth on digital devices and platforms, easy and real-time payments have created a strong wave of DPPs applications in the payment sector of digital payment service providers, making an important contribution to the development of non-cash payments in Vietnam.

Factors affecting Digital Payment Performance

The digital payment providers' behavior of using DPPs positively affects the digital payment performance in Vietnam. This result is compatible and consistent with the hypothesis of previous studies by Adhikary et al. (2021), Latifah et al. (2021), Chaveesuk et al. (2022), Bhattarai, et al. (2023), Birigozzi et al. (2025). This result highlights the development of digital payments in Vietnam. The digital payment ecosystem in Vietnam is changing strongly thanks to investment in technology platforms, DPPs, promoting policies and government initiatives. This result also shows that the investment and application of DPPs by digital payment service providers has a positive impact on reducing costs, reducing transaction time, enhancing security, increasing sales growth and strengthening customer relationships, thereby increasing digital payment performance.

Conclusions and Recommendations

The purpose of this study is to find out the impact of behavioral intention and behavior using of DPPs on the digital payment performance of digital payment service providers in Vietnam through applying UTAUT2 integrated with TOE model. The research results identify the factors Effort Expectancy, Price Value, Time and Cost Savings, positively impact Behavioral Intention; the factors Habits, and Behavioral Intention positively impact Use Behavior. At the same time, this finding shows that only Use Behavior positively impacts Digital Payment Performance, while Behavioral Intention does not impact Digital Payment Performance. These research results are consistent with the current status of digital payment service development, and are also important for the practical application of this model to determine factors affecting the behavioral intentions and behavior of using digital payment platforms to the digital payment performance of digital payment service providers in Vietnam. From there, this study proposes some recommendations as follows.

Firstly, in order to promote the effort expectancy positively influences the behavioral intention to use DPPs, digital payment service providers in Vietnam need to continue to strengthen the construction of digital payment infrastructure. Digital payment service providers need to accelerate the use and expansion of 5G networks to improve network coverage, use high-speed, seamless network services, and enhance the level of mobile internet application. At the same

time, digital payment service providers need to adopt new, easy-to-understand and easy-to-use digital payment application platforms, and better utilize the information collected by digital payments from digital payment traces to meet diverse digital payment service needs.

Secondly, digital payment infrastructure is a tool to support transactions and promote revenue for digital payment service providers. Therefore, digital payment service providers need to pay regular attention to the application, maintenance, and development of technological solutions and platforms supporting the implementation of digital payments that need to ensure fast and convenient payments, through many methods or diverse forms of digital payments. In particular, digital payment service providers need to pay attention to the structure of the digital payment infrastructure, including components such as payment gateways, transaction processing systems, security systems, systems connecting transaction participants and digital payment service providers to combine these components together to create an efficient, fast and secure digital payment system for users. Thereby, digital payment service providers can exploit the price value factor that positively affects behavioral intention to use DPPs, maximize the fast, convenient and safe features, save time, reduce operating costs, create competitive advantages for digital payment service providers, optimize business processes, promote the development of digital ecosystems, expand cooperation with technology partners and increase many more benefits brought by DDPs.

Thirdly, time and cost savings have a positive impact on the digital payment service providers' behavioral intention of adopting DPPs in Vietnam. This is a new factor arising in the model, which further confirms the impact of the benefits of using DPPs on digital payment service providers. Therefore, digital payment service providers need to optimize performance and reduce operating costs, as well as improve operational efficiency and business management. Accordingly, digital payment service providers are interested in fully investing in and synchronizing digital payment infrastructure to help reduce time and costs for the payment process. Digital payments are made quickly, automating financial tasks, from transaction confirmation to report management, helping to optimize work performance, save operating costs and shorten the transaction process.

Fourthly, the change in payment service provision habits of digital payment service providers based on DPPs is clearly demonstrated when there is a shift from traditional payment methods to providing digital wallets, contactless payments, etc. To create habits and promote the application of DPPs in providing digital payment services, it is necessary to strongly develop a widespread digital payment infrastructure. In addition to developing new and modern DPPs, digital payment infrastructure and platform providers need to provide DPPs with many new and suitable features, helping to provide digital payment services with many utilities, ease of use, and reasonable costs, facilitating seamless connections with shopping malls, e-commerce platforms, businesses and services in the digital payment network infrastructure system. At the same time, policymakers need to perfect the legal framework, mechanisms and policies to encourage the widespread application of DPPs for digital payments, especially the application of DPPs to provide cross-border digital payment services and provide digital payment services associated with the implementation of the National Strategy for Digital Economy and Digital Society Development to 2025, with a vision to 2030 in Vietnam.

Fifthly, the behavioral intention factor that positively affects the behavior of using DPPs of digital payment service providers in Vietnam needs to be of interest not only to digital payment service providers but also to DPP providers and policymakers. There needs to be synchronous

measures and mechanisms, policies, promotion, and facilitation for the coordination and integration of omnichannel digital payment platforms and omnichannel e-commerce platforms. This will facilitate DPPs providers to design suitable DPPs, as well as help digital payment service providers meet the needs of increasingly growing digital payment transactions along with payment transactions made through e-commerce solutions, helping transactions take place smoothly on digital devices and platforms, easy and real-time payments, making an important contribution to the development of non-cash payments in Vietnam.

Sixthly, to promote the use of DPPs by digital payment service providers to positively impact digital payment performance in Vietnam, timely and synchronous solutions and policies are needed in each development stage in line with the Financial Strategy to 2030 and the National Strategy for Digital Economy and Digital Society Development to 2025, with a vision to 2030 in Vietnam. In particular, it is necessary to deploy solutions to ensure all necessary factors to create a sustainable digital payment ecosystem in Vietnam. Deploy appropriate technological and operational innovation solutions; develop a clearing and settlement system to meet the increasing demand for transaction volume; promote and facilitate digital transformation in the financial sector and develop digital finance; develop application platforms for digital services in the financial sector. These solutions contribute to the development of digital payments in Vietnam by increasing the number of transactions of digital payment service providers, which has a positive impact on reducing costs, reducing transaction time, enhancing security, increasing sales, creating more new relationships with customers and partners, thereby increasing digital payment performance for digital payment service providers in Vietnam.

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